

Omkar Vaity

Hi, I'm Omkar Vaity, a Software Engineer with expertise in full-stack development, cloud infrastructure, and automation. Currently pursuing my Master's in Software Engineering at Northeastern University, I specialize in building scalable applications using technologies like JavaScript, Python, Rust, and Solidity. With experience at LTIMindtree, I've led the development of high-performance web apps, optimized system performance, and implemented CI/CD pipelines to enhance team efficiency. I'm passionate about solving complex problems and continuously expanding my skill set to deliver innovative software solutions.



My Projects



Tic-Tac-Toe & Connect 4 Game AI

Implemented the Monte Carlo Tree Search (MCTS) algorithm for Tic-Tac-Toe and Connect 4 games, achieving a 95% win rate against random players.

Developed and optimized the AI strategy for improved decision-making and competitiveness against automated opponents. The project involved simulating game plays and determining the outcomes (win, loss, or draw) to refine the AI's gameplay.



Decentralized NFT Marketplace

Built a decentralized NFT marketplace with Next.js and OpenZeppelin ERC-721 smart contracts, deployed on a Tenderly testnet. The platform allows users to mint NFTs from images hosted on IPFS and view personalized collections. Designed and implemented a fully decentralized on-chain auction system, ensuring transparent bidding and secure ownership transfers.

Deployed the app on Vercel, offering a scalable, user-friendly interface for seamless blockchain interaction.



Bitcoin Explorer

Developed a real-time blockchain explorer using Rust for data ingestion and PostgreSQL for database management. Built a responsive UI with TypeScript, HTML, and CSS to visualize real-time Bitcoin block height and key metrics. Implemented continuous data ingestion from the Bitcoin client using Rust, ensuring up-to-date database entries. Packaged the entire application as a Docker container, enabling easy deployment and integration with CI/CD pipelines via GitHub Actions.

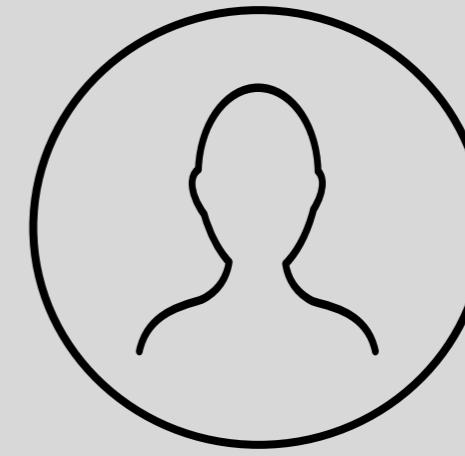
Testimonial 1



Mihir Adelkar

I had the pleasure of working with Omkar on several challenging projects at Northeastern University. His technical expertise, especially in full-stack development and cloud solutions, consistently impressed me. Omkar is not only a skilled developer but also a great team player who always ensures that every task is completed with precision and efficiency. His problem-solving abilities and collaborative nature make him an asset to any team.

Testimonial 2



Aniket Navale

Working with Omkar has been a fantastic experience. He approaches each project with a deep understanding of both the technical and strategic aspects. Whether it was designing scalable applications or optimizing system performance, Omkar demonstrated outstanding proficiency. His attention to detail and ability to tackle complex challenges with ease made a huge difference in the success of our projects.

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